

Food habits of pre-school children in rural Varanasi

ANITA SINGH AND VINITA SINGH

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ABSTRACT

The study was conducted on food habits, nature and type of food intake along with frequency of special food taken by the preschool children residing in rural areas of Varanasi. Three hundred preschool children were purposely selected from Chhapra community development block of the district. The information were gathered with the help of "Questionnaire cum Interview Technique". Interview questionnaire contained comprehensive questions related to the study. The data were pre-tested in tabular form with suitable statistical tests. Though more than half of the overall children (51.33%) were non-vegetarian, but only 8.33% children used to consume this diet regularly. Nearly three fifth female children consumed vegetarian diet. The food habit was found significantly associated with sex of the child ($P < 0.025$) and land holding ($P < 0.05$) by the head of family. Sweet dish was preferred by male children while females liked sour and spicy diets ($P < 0.001$). Although similar food items were provided to the male and female children ($P > 0.05$ NS), but the provision of special diets to the male children by the mother indicated their biased behaviour towards male children and deprivation of the female children ($P < 0.025$).

See end of the article for authors' affiliations

Correspondence to:

VINITA SINGH

Department of Food and Nutrition, Sri Agrasen Kanya Autonomous P.G. College, VARANASI (U.P.) INDIA

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Nutrition is a basic facet of health. It is necessary for physical, mental and emotional growth and development of the child (Park, 1998). Accelerated growth occurs during preschool age of the child. The child learns discipline and socialization during this period. In addition, there is significant increase in basal metabolism of the child due to walking, running and playing. These activities are responsible to have positive impact on food intake as well food habit of the child. Further, a lot of energy of the child is exhausted in adjustment with parents and family members. Consequently it is essential to develop good feeding habit and intake of nutritional food items in the preschool children (Verma and Pandey, 2002; and Singh, 2005). Considering all these aspects, the present study was fabricated to explore food habit, nature and type of food intake along with frequency of special food taken by the preschool children residing in rural areas of Varanasi district (Uttar Pradesh).

METHODOLOGY

Three hundred preschool children were purposely selected from the villages of Chhapra community development block of Varanasi district (U.P.) Only one child was selected from a family. The information was gathered with the help of questionnaire-cum-interview technique. Various questions related to aims and objectives of the study were included in the interview schedule (questionnaire). The mother of the children were interviewed for this purpose. The data were presented in tabular form and the results were inferred with suitable

statistical tests wherever felt necessary.

Background information:

Majority of the subjects belonged to Hindu (88.33%) religion and the contribution of Muslim subjects was only 11.67%. Amongst Hindu subjects, more than one third children (35.33%) were related to other backward castes, followed by general (27.67%) and SC (25.33%) Majority of the subjects lived in nuclear families (63.00%). The mean family size was assessed 6.25 ± 2.48 members. The literacy rate of the mothers was found 69.33% and less than one fifth families (18.33%) had education beyond graduate standard. More than half of the mothers (56.67%) were house wives; followed by labour (27.67%) and business (11.67%). In addition, 2.67% and 1.33% mothers were engaged in service and agricultural activities, respectively.

RESULTS AND DISCUSSION

Table I illustrates food habit of the preschool children according to their sex. It was observed that nearly half of the overall children (48.67%) were vegetarian; followed by irregular (43.00%) and regular (8.33%) non-vegetarian. According to sex, more than half of the female children (57.34%) against 40.76% males were exclusively vegetarian. On the other hand, nearly half of the male children (50.96%) against 34.27% females were non-vegetarian (irregular). The statistical analysis suggested significant association of food habit with sex of the children ($\chi^2 = 9.075$, $p < 0.025^{**}$). Generally mothers preferred

Table 1 : Food habit of preschool children according to their sex

Sr. No.	Food habit	Sex				Total	
		Male		Female		No.	%
		No.	%	No.	%		
1.	Vegetarian	64	40.76	82	57.34	146	48.67
2.	Non-vegetarian (Regular)	13	8.28	12	8.39	25	8.33
3.	Non-vegetarian (Irregular)	80	50.96	49	34.27	129	43.00
	Total	157	100	143	100	300	100

Statistical significance : $\chi^2 = 9.075$, $df = 2$, $p < 0.025^{**}$ (Moderately significant)

Table 2: Food habits of preschool children according to land holding by HOF

Sr. No.	Food habit	Sex				Total	
		Land holder agriculturist		Landless non- agriculturist		No.	%
		No.	%	No.	%		
1.	Vegetarian	72	43.90	74	54.41	146	48.67
2.	Non-vegetarian (regular)	19	11.59	6	4.41	25	8.33
3.	Non-vegetarian (irregular)	73	44.51	56	41.18	129	43.00
	Total	164	100	136	100	300	100

Statistical significance : $\chi^2 = 6.471$, $df = 2$, $p < 0.05^*$ (Just significant)

HOF : Head of family

vegetarian diet to the female children to avoid any problem for her adjustment in the in-laws' family on behalf of food habit.

HOF : Head of family:

When the same data were presented according to land holding by head of family (Table 2), it was observed that more than half of the land less children (54.41%) against 43.90% land holders were exclusively vegetarian. On the other hand more than two fifth land holder's children (44.51%) against 41.18% landless were irregular non-vegetarian; while 11.59% land holders children against 4.41% landless were regular non-vegetarian. The statistical analysis established just significant association between food habit of the children and land holding by the head of families ($\chi^2 = 6.471$, $p < 0.05^*$).

Non-vegetarian diet, regular or irregular, was consumed due to availability of such food items by landholder's children.

In earlier studies of Varanasi district Marwah *et al.* (1978) and Mishra and Singh (2006) have also reported similar findings. These authors also reported predominance of non-vegetarian food habit in the children, but in actual practice, they were unable to consume these diets due to non-availability and accessibility.

It is very interesting the liking towards nature (sweet/sour/spicy) of food. Items were entirely different ($\chi^2 = 27.855$, $df = 3$, $p < 0.001^{***}$) in two sexes of the children (Table 3). There were overall 50.33%, 23.33%; 14.33% and 12.00% children who liked sweet, salty, spicy and sour food items, respectively. According to sex, nearly three fifth male children (59.87%) against 39.86% females preferred sweet food items. On its contrary, nearly one-fourth female children (24.48%) against 5.10% males liked spicy food items. Similarly, 14.68% females against 9.55% males were accustomed to consume sour diet. Mishra and Agrawal (1978) emphasized to provide food items to the children according to their liking, but the

Table 3 : Nature of food intake of preschool children according their sex

Sr. No.	Nature of food intake	Sex				Total	
		Male		Female		No.	%
		No.	%	No.	%		
1.	Salty	40	25.48	30	20.98	70	23.33
2.	Sweet	94	59.87	57	39.86	151	50.33
3.	Sour	15	9.55	21	14.68	36	12.00
4.	Spicy	8	5.10	35	24.48	43	14.33
	Total	157	100	143	100	300	100

Statistical significance : $\chi^2 = 27.855$, $df = 3$, $p < 0.001^{***}$

(Highly significant)

Table 4 : Types of food given to pre-school children according to their sex

Sr. No.	Types of food	Sex of the child				Total	
		Male		Female		No.	%
		No.	%	No.	%		
1.	Normal (Routine family meal)	83	52.87	87	60.84	170	56.67
2.	Special foods	73	46.50	56	39.16	129	43.00
3.	Marketed	1	0.64	–	–	1	0.33
	Total	157	100	143	100	300	100

Statistical significance: $\chi^2=1.937, df=1, p<0.05$ NS

Table 5 : Frequency of special food given to pre-school children according to their sex

Sr. No.	Frequency of special food#	Sex of the child				Total	
		Male		Female		No.	%
		No.	%	No.	%		
1.	Daily	32	43.24	20	35.71	52	40.00
2.	Twice in a week	23	31.08	15	26.79	38	29.23
3.	Once in a week	13	17.57	5	8.93	18	13.85
4.	Occasionally	6	8.11	16	28.57	22	16.92
	Total	74	100	56	100	130	100

Statistical significance: $\chi^2=10.259, df=3, p<0.025$ ** # Including marketed food items.

authors restricted to provide spicy and sour foods, while Tripathi (2000) recommended to provide food items according to liking of the children.

In view of proper physical, mental and emotional development of the children, the special food items enriched with protein, mineral and vitamins are very essential to provide them. It is quite disheartening that more than half of the overall children (56.67%) did not receive special food items and they consumed similar diets as available to other family members (Table 4). There were 43.00% overall children who received special foods prepared for them.

In addition, one male child was provided marketed product like Bournvita, Nutrament, Horlics, Protenule or Proteine etc. The type of food provided to the male and female children was found statistically similar ($\chi^2=1.937, p>0.05$) NS and the differences observed between two sexes were due to choice factor. The finding of the present study has full agreement with the observations reported by Beal (1953); Bhatt and Dahiya (1985) and George *et al.* (2000) It was reported that majority of the preschool children lacked various nutritive diets.

Though special foods were similarly provided to male and female children, but the frequency of providing these special food items was statically different ($\chi^2=10.259, df=3, p<0.025$ **) for the two sexes (Table 5). There were 43.24% male children who received special diets daily, followed by twice in a week (31.08%), Once in a week (17.57%) and occasionally (8.11%). On the other hand, 35.71%; 28.57%; 26.79% and 8.93% female children

used to consume these diets daily; occasionally; twice in a week and once in a week, respectively. The provision of special diets to the male children by the mothers indicated their biased behaviour towards male children and deprivation of the female children.

Authors' affiliations:

ANITA SINGH, Department of Food and Nutrition, Sri Agrasen Kanya Autonomous P.G. College, Parmanandpur, VARANASI (U.P.) INDIA

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